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Archaeological Investigations at Causton's Bluff, Chatham County, Georgia

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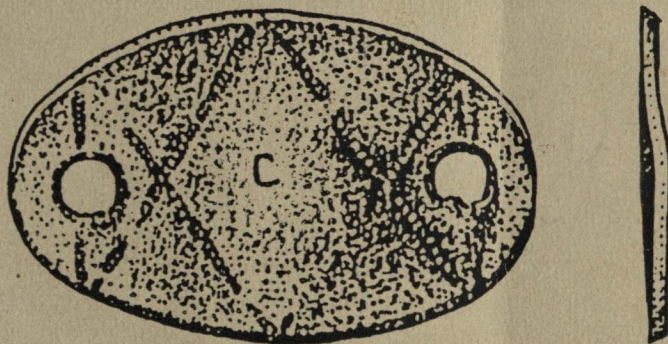
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ARCHAEOLOGICAL INVESTIGATIONS AT CAUSTON'S BLUFF

Chatham County, Georgia

in conjunction with an application
to construct a boat basin and erosional control structures
(Savannah District, US Army Corps of Engineers #074-DYN-004585)



by

Lawrence E. Babits
Principal Investigator

and

Julie A. Barnes
Gina M. Cupstid
Timothy Foard
Rick Leech
April Scott Walsh

Armstrong State College
Savannah, Georgia
April 1987

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Scientific Abstract

The Causton's Bluff project was designed to mitigate the impact of road and marina construction on a 75 acre tract of high ground north of President Street at its junction with the Wilmington River, Chatham County, Georgia.

Initial survey had revealed the presence of multicomponent sites relating to over 4500 years of past human activity. The mitigation phase explored these sites in detail, recovering a wealth of information about aboriginal occupations on non-village, non-mound sites over time. The sites were probably of short duration since few aboriginal features were recovered during the mitigation phase.

The historic components fall into two classes: domestic and military. The domestic sites include an eroding mid-eighteenth century domestic site, a late eighteenth century site of undetermined use, an overseer's house, probably utilized as a Confederate headquarters, and a slave (later freeman's) village. The military structures included the walls of Fort Bartow, a hutting area and a free standing bombproof.

Mitigation was accomplished in conjunction with earthmoving activities timed to completion of work on sites. Following excavation, the roadway was opened through one-half the projected right-of-way. This area was then swept with metal detectors to ensure more complete artifact and data recovery. This later operation proved especially useful in adding additional material from a wider area to the data collection from the sites.

Lay Abstract

Archaeological investigations were carried out on several sites located on Causton's Bluff, located immediately north of President Street at its junction with the Wilmington River in Chatham County, Georgia. The sites included Indian sites, and historical sites.

The Indian sites produced materials dating back to about 4500 BC and to the present. The major Indian occupations took place in two phases. The first was between 2500 BC to 500 AD. The second dates from between 1000 AD to circa 1600 AD. Good evidence for a third, earlier occupation from circa 9000 BC to 2500 BC was found just outside the project area.

The historical occupations represented a "first settlement" phase, a late eighteenth century phase, an ante bellum plantation site, a probable slave, later freeman's, village, a Civil War fortification complex and hut area. Many of these were superimposed on Indian sites.

The Indian sites appear to have been occupied sporadically through the year. It has not been possible to demonstrate this with certainty. The historical sites were year-round occupations, with the exception of the military positions. These were not occupied during the summer due to the problem of marsh-related diseases.

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INTRODUCTION

This report presents the results of an archaeological mitigation program conducted on Causton's Bluff, Chatham County, Georgia (Fig. 1-1). The site location was favorable for use over a long period of time as shown by ceramic assemblages dating to at least 1700 BC.

The archeological work was required as part of the permitting procedure of the U. S. Army Corps of Engineers. It was implemented because a proposed marina, access road and bluff line stabilization and riprapping would involve ground disturbance within an area containing materials which were determined eligible for inclusion on the National Register of Historic Places (Babits 1983). The permitting action involved only approximately 12 acres of the 75 acre landmass composing the bluff area.

The bluff is characterized by irregular shell midden throughout the area, discrete, historic midden within the proposed access road right-of-way and along the bluff edge, and large earthen mounds constructed between 1862 and 1864 by Confederate forces.

Data collected from the prehistoric sites on Causton's Bluff provided information about non-shell midden sites and added to our knowledge of time depth on the Georgia coast. Some information was recovered suggesting a refinement of the aboriginal ceramic sequence, in terms of consolidation of terminology, might be in order.

In terms of historical archaeology, significant contributions were made in two areas. First, John Otto's seminal work on slave middens (Otto 1984) was found to partially reflect the artifactual assemblage found during the project. This broadens our knowledge about slave dietary habits and foodways.

Second, the roadway cut through Civil War earthworks at two points as well as a bombproof. Excavation at these points allowed investigation of construction techniques and comparison with contemporary manuals. Although information relating to fort construction was available in the form of manuals and memoirs, this projects marks the first time that a Confederate earthwork had been examined in terms of its actual construction. Similarly, the removal of overburden allowed the examination of the internal structure of a bombproof, only one of which had previously been inspected. This bombproof was free standing and considerably different from the one examined earlier. Our knowledge about earthwork construction has been markedly increased as a result of this project.

In terms of logistics, 87 50 x 50 cm test pits and 110 2 x 2 meter excavation units were excavated to an average depth of 50 cm. Exclusive of bulldozer operations through the earthen mounds, more than 240 cubic meters of material were examined for artifacts. Some 29 cultural features, ranging from brick piers to possible hearths, were examined during the mitigation phase of the project.

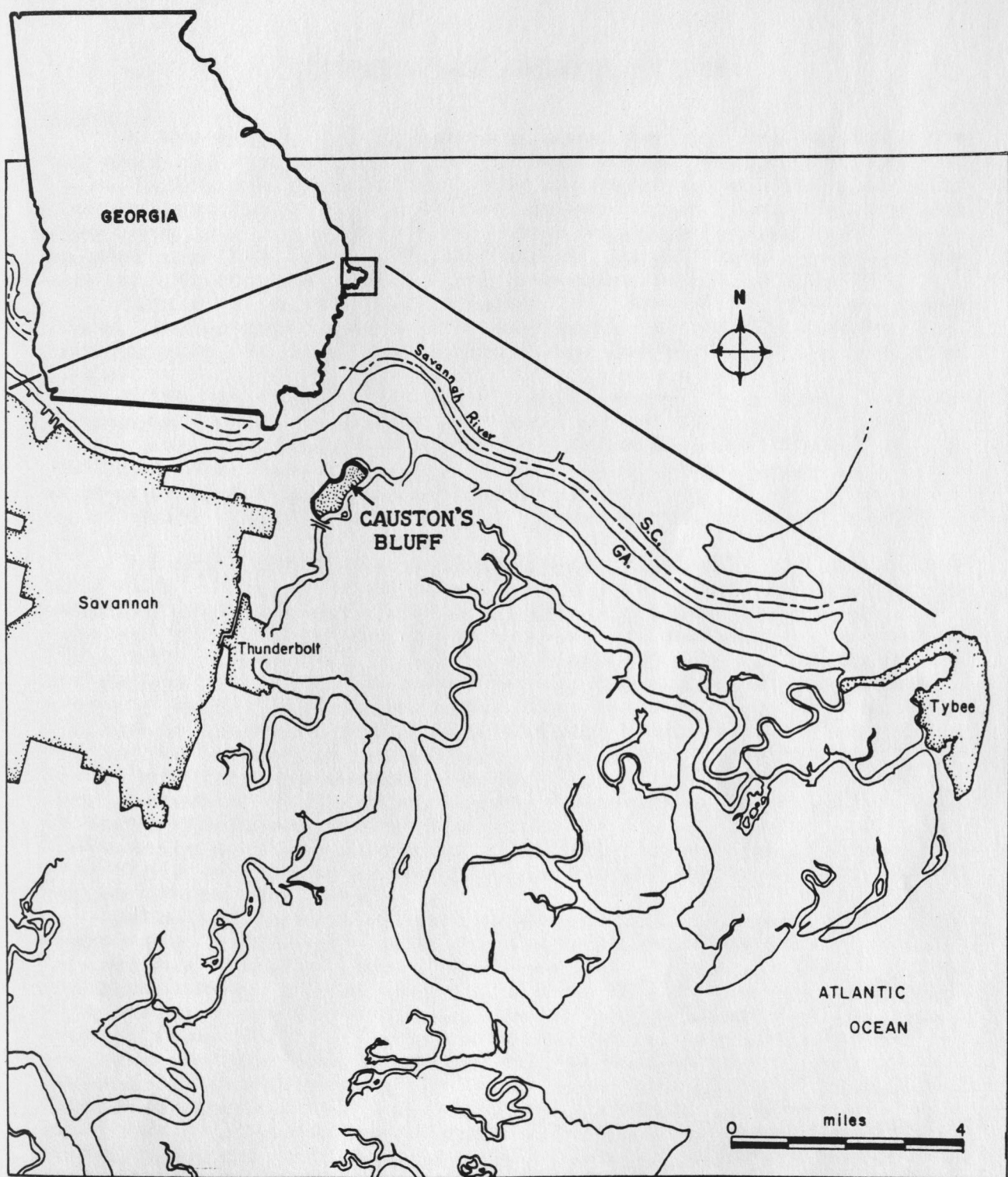


Figure 1-1: Location of Causton's Bluff.

CAUSTON'S BLUFF NATURAL HISTORY

Geology

At the end of the Wisconsin glacial period, the level of the sea began to rise and the shoreline moved inland. Circa 5000 years before the present (BP), the sea level on the Georgia coast was approximately two to four meters lower than at present (DePratter and Howard 1977:4). This fluctuation was just one of several over the last 100,000 years which have produced the barrier islands and bluffs along the coast (MacNeil 1950:95).

Causton's Bluff was created by one of the earlier coast lines, dating approximately 4-6,000 years ago (MacNeil 1949:104). Geologically, it would be called the Silver Bluff shore line (Ibid.).

Soils on Causton's Bluff were formed as sandy marine sediments. These sediments are part of the Pamlico formation, a marine terrace formed during the pleistocene epoch (Wilkes *et al*, 1974:67). The terrace ranges from 3 to 9 meters above sea level at the present time. Causton's Bluff itself may be the remnant of an offshore island or a barrier beach of the Pamlico formation (Ibid.).

The soils within the project area are chiefly Lakeland fine sand and Chipley fine sand (Ibid.:3-4). The representative Lakeland profile exhibits a very dark, grayish brown fine sand varying from 5 cm to 9 cm (4 to 7 inches) in thickness (Ibid.:23). Under this layer, to a depth of 178 cm (70 inches), are layers of light yellowish brown, brown and pale brown soil, slightly acid, loose fine sand. The Chipley fine sand is very similar to Lakeland, except that Chipley has gray mottling within 102 cm (40 inches) of the surface (Ibid.:15). The mottling is the result of seasonal wetness. Both Chipley and Lakeland soils are very permeable. At Causton's Bluff, there are also smaller areas of darker colored, poorly drained soils in the lower elevations. These soils are Leon fine sand, Ellabelle loamy sand and Mascotte sand (Ibid.:4). Some of the lower areas are manmade, such as the bottom of the fort ditch.

Below the surface of the Lakeland and Chipley fine sands there are layers of reddish brown, dense, cemented, fine sand (ortstein), locally known as hardpan. These layers vary in thickness from a few centimeters to 61 centimeters. Blocks of this material are currently exposed in the Wilmington River after eroding from the bluff. They were formed by the leaching of iron and aluminum from the sandy marine sediments by organic acids. Subsequent precipitation of the iron and aluminum formed the layers of hardpan. This soil forming process is typical of the cool, humid climates associated with the Pleistocene epoch. The multiplicity and thickness of the hardpan layer in this area indicate a possible periodic deposition of the sandy marine sediments, with a considerable time interval between depositions (Guy Earle, personal communication, dated June 1986).

Biotic Province

The subtropical latitude and coastal setting of Causton's Bluff result in a mild climate. Winters are short and mild. Although cold spells due to fronts are known to lower the temperature below 20 degrees Fahrenheit, the average daily low is about 40 degree Fahrenheit. Summers are warm and humid; occasional heat spells with the temperature over 100 degrees Fahrenheit are rare but not unknown. The effect of heat is mitigated by proximity to the ocean. Typical highs during the summer are in the low 90s.

The average yearly rainfall of 49 inches is distributed evenly throughout the year, although there is a pronounced wet season in the summer. Severe weather conditions occur due to tropical storms/hurricanes in the late summer and fall. Thunderstorms also occur, often dropping large quantities of rain within a small locality in a very short time. Snowfall is rare but does occur occasionally (Wilkes et al. 1974:67).

Flora

The natural vegetation patterns at Causton's Bluff have been altered by a number of factors. The most pronounced alteration came with clearing associated with white settlement and conversion of the land to various crops. Although the land has now grown over again, it was logged as recently as the 1930's but hardwoods were not, as a rule, taken at that time.

The salt marsh has been heavily altered due to rice agriculture in the eighteenth and nineteenth centuries. The drainage patterns of the paddies are still visible in the marsh despite widespread dredge spoil dumping in the twentieth century (Fig. 1-2). The marsh was further altered by the construction of the Savannah and Tybee Railroad in the late nineteenth century.

The bluff proper is now covered by a mixed pine-hardwood forest regenerating since harvesting stopped in the 1930's. Included among the cover are longleaf pine (Pinus palustris), loblolly pine (Pinus taeda), slash pine (Pinus elliottii), laurel oak (Quercus laurifolia), live oak (Quercus virginiana), water oak (Quercus nigra), pignut hickory (Carya glabra), magnolia (Magnolia), red bay (Persea borbonia), and mulberry (Morus rubra). In the shrub layer are, among others, American holly (Ilex opaca), sassafras (Sassafras albidum), saw palmetto, blueberry, wax myrtle (Myrica cerifera), greenbriar (various species), muscadine and common grapes.

Pollen samples taken from sites on Causton's Bluff reveal that the environment has not changed dramatically in past centuries. Chestnut and maple were once present but are no longer in the present floral population. These trees may indicate a wetter, cooler period (Seward 1986). This mature forest community was followed by increased drying and/or a lowered water table. A major change in vegetation apparently occurred sometime after 1000 AD if archaeological dating at the Sassafras Site is accurate. Changes in the arboreal community were noted between

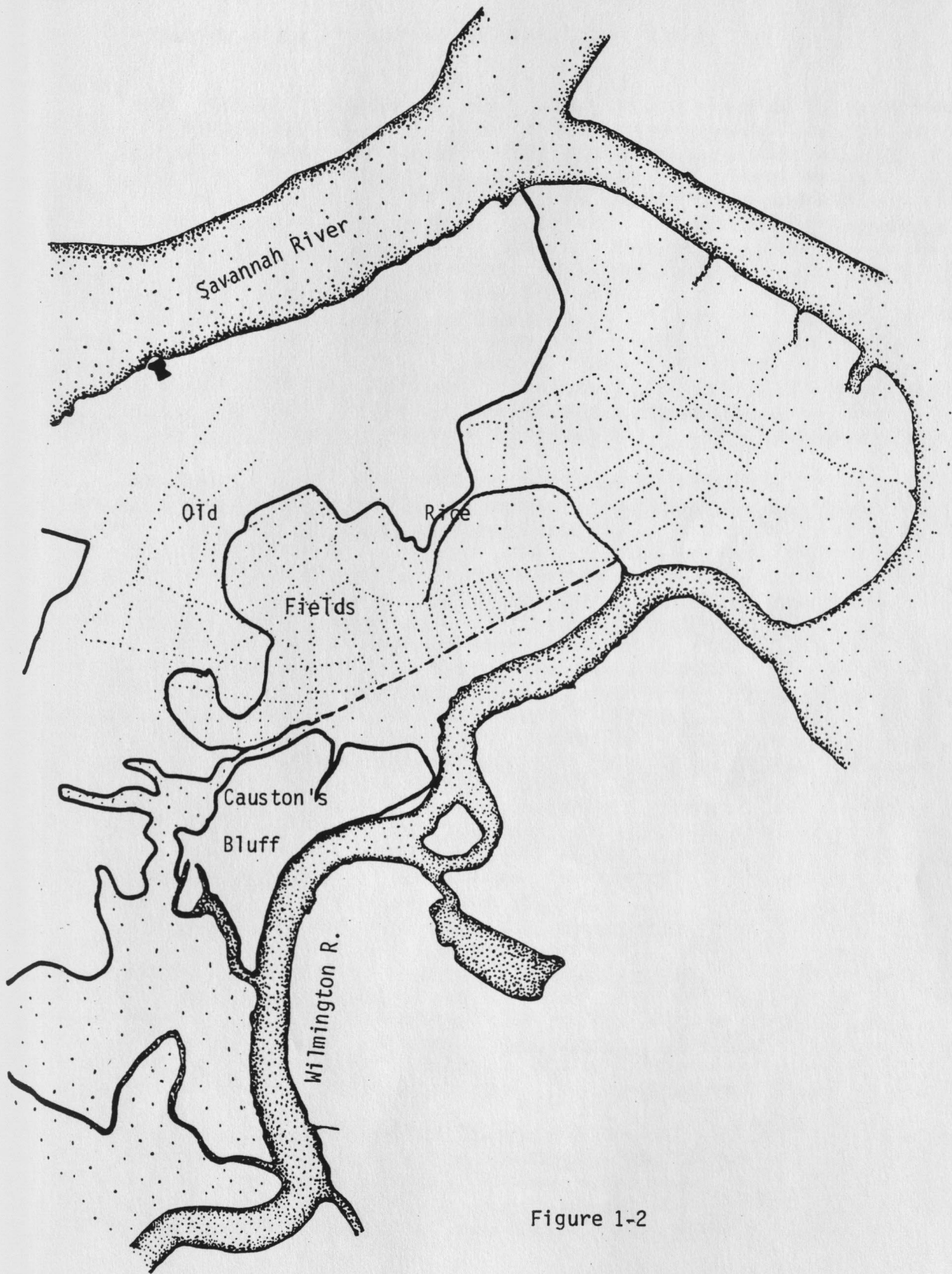


Figure 1-2

Schematic Map taken from Savannah
Quad., (U.S.G.S.).

the time of Thomas Causton and the Civil War.

Faunal

The faunal community has been much altered by long-term human presence on the bluff and surrounding areas. In the past, large mammals such as panther (Felis concolor), deer (Odocoileus virginianus), black bear (Ursus americanus) and bobcat (Lynx rufus) were once found in the vicinity. Smaller mammals such as rabbit (Silvilagus floridanus), squirrel (Sciurus carolinensis), otter (Lutra canadensis), mink (Mustela vison), opossum (Didelphis virginiana), raccoon (Procyon lotor) and wood rat (Neotoma floridana) still occupy the area.

Alligators (Alligator mississippiensis) may be present in the marsh but were not observed during the survey. A large variety of snakes, including the diamond back rattlesnake (Crotalis adamanteus), were encountered. Turtles, including box (Terrepene carolina), yellow bellied (Chrysemys scripta) and softshell (Trinoyx spp), were seen or recovered from archaeological context.

Numerous land and water fowl were observed. In the past, turkey (Meleagris gallopavo), eagle (Haliaeetus leucocephalus), osprey (Pandion halioetus carolinensis) and other large birds were probably present, although their range is now restricted due to human encroachment. A large variety of small birds was noted including the cardinal (Cardinalis cardinalis), mocking bird (Mimus polyglottus) and blue jay (Cyanocitta cristata).

A number of fish species are present in the Wilmington River adjacent to the site. During the survey project, fishermen were catching sea trout (Cynoscion spp.), catfish (Ictaluridae), shad (Alosa sapidissima), striped bass (Morone saxatilis), silver perch (Bairdiella chrysoura), kingfish (Menticirrhus spp.), croaker (Micropogonias undulatus) and spot (Leiostomus xanthurus) from the bank adjacent to the bluff. While mullet (Mugil) and catfish (Arius felis) were neither noted nor recovered archaeologically, but they are part of the biomass and have been noted on other local archaeological sites (Larson 1980). One drum (Stellier lanceolatus) tooth was recovered so this species may have been utilized as a resource as well.

Crabs, both blue (Callinectes sapidus) and fiddler (Uca), are still present in large numbers. Oysters (Crassostrea virginica), soft shell, quahog (Mercenaria spp.), and razor back clams (Tagelus plebius) were seen and/or recovered during excavation. Other shellfish including the whelks (Busycon spp.) and Atlantic ribbed mussel (Geukensia demissa) were noted adjacent to the bluff. Virtually all of these, excepting perhaps the fiddler crabs, were utilized in prehistoric times (Larson 1980).

The rich environment of Causton's Bluff undoubtedly provided resources for human occupation through time. Since the needs of humans are fairly consistent, these resources would have been utilized in both prehistoric and historic periods. This use of a favorable natural setting resulted, on Causton's Bluff as

elsewhere on the coast, in the creation of multi-component sites. The occupational sequences are summarized in the next two chapters. Detailed presentations on the various sites follow the background information.

CULTURAL HISTORY

INTRODUCTION

Various groups of people have occupied Causton's Bluff over the last 8500 years. Paleoindian bands probably visited the site and groups using ceramics were certainly on the bluff circa 2500 BC. More intensive exploitation followed as horticulture was introduced. By the time of European contact, a fairly large population existed in Chatham County.

The native American population in the area dropped off rapidly after contact. By the late seventeenth century, Europeans were in the area and some trading activity was underway with groups of Indians whose nominal territory was further to the west. Widespread Indian removal occurred in the 1705-1720 period.

When Oglethorpe's settlers arrived, they found a trading post on Yamacraw bluff but no other settlements (Braley 1986:17; O'Quinn 1961:1). Shortly after this 1733 settlement at what would become Savannah Thomas Causton was granted title to the bluff which bears his name. A succession of later occupants would exploit the bluff for rice, cotton and other products until the twentieth century. The most recent owners have opted to construct a planned urban development on the site.

HISTORICAL BACKGROUND

The whole of past events can be subsumed as history. A more narrow view would equate history only with events which have been preserved by written materials. This is such a common distinction that the period before the arrival of the Europeans is described as prehistoric and the post-contact period as historic.

Prehistoric

The occupational period in the Americas prior to the arrival of explorers and settlers from the old world has been termed prehistoric because there were no written records. As a result of archaeological investigation, oral tradition and the reports of the first explorers and settlers, an American occupational sequence has been postulated. These archaeological cultures have widespread explanatory use and are generally accepted as useful interpretive devices providing chronological and cultural markers for past human activity. Changes are made to details as new information became available but the overview has remained somewhat stable over the last 25 to 40 years.

As knowledge has increased, there has been a movement away from building models of areal development and chronology towards explaining how these cultures changed (Willey and Sabloff 1980:7-10). This has been true of the Georgia coastal region as well.

Early research concentrated on the recovery of materials without regard for accurate context by a variety of individuals among whom were Charles C. Jones and Clarence B. Moore (Thomas *et al.* 1979:172-175). By the mid-1930's attempts were being made to establish an accurate chronological succession for the region (Willey and Sabloff 1980). One of the major persons involved in this activity was a native Savannahian, Antonio Waring (Williams 1977). Waring's work and publications concentrated on the Georgia coast and much of the early cultural and ceramic sequence identification was his doing (Ibid.).

In the late 1950's a shift from identifying chronology to identifying process, or how cultures changed, was underway (Willey and Sabloff 1980). In part, this shift was attributed to the seminal document A Study of Archaeology by W. W. Taylor (1968). In a more strident form, this became known as the "new archaeology" of the 1960's which claimed detailed analysis would result in the formation of cultural laws explaining how cultures changed (Binford 1972, Willey and Sabloff 1980).

At the present time, research interests are related to identifying particular localized sequences (Caldwell 1971:89; Larson 1969:13-58) and identifying them with groups mentioned in early records (Braley 1986; Thomas *et al.* 1979:178-180, 194-196). Additional research has also concentrated on the environmental adaptation of the Indians and socio-political linkages between groups.

Just as there is change in the approaches to studying the past, the peoples under study also adapted and changed. This adaptation was not a static process but rather a dynamic, continually changing one. As the focus of the study has changed, new and more detailed information has become available. Several underlying themes have been used to direct study of the aboriginal populations. These include a relationship between increasing sedentism and seasonal movement, a long-range, traditional subsistence strategy oriented toward hunting, collecting and fishing, population growth, growing socio-political complexity and cultural change by indigeneous groups receptive to outside ideas (Honerkamp *et al.* 1984:23). This information and its interpretation is summarized in the following introduction to the prehistory of the Georgia coast.

PALEOINDIAN

The Paleoindian cultural stage (ca. 9,500 BC) is the earliest about which sufficient lifestyle details are available. An earlier cultural period has been postulated but little conclusive evidence has been forthcoming to adequately define it (Hudson 1978: 39; Humphrey and Stanford 1979). Archeological investigation suggests that the earliest Americans first entered what is now the United States by crossing over a land bridge between Asia and North America well before 15,000 BP (Hudson 1978:38; Krause 1985:21; Sanders and Marino 1970:27; Wilmsen 1974:12). This group was composed of wide-ranging bands of

foragers who exploited a variety of plant and animal foods (Coe 1980:120; Wilmsen 1974:10).

The artifacts which have survived from these peoples were very distinctive and chiefly related to hunting (Hudson 1978:39-40; Williams 1977:236). They are usually associated with large game animals which are now extinct (Griffin 1952:353; Hudson 1978:39-41; Wilmsen 1974:10-14). Thus, these people have been described as big game hunters. This is almost certainly a misnomer since they appear to have been quite sophisticated in terms of technology and extraction of a near totality of resources available (Hudson 1978:42-44; Wilmsen 1974:10). In terms of social organization, the Paleoindians were probably organized into bands ranging in size from around 20 to as many as perhaps 100 members (Service 1962:70; Sanders and Marino 1970:28). This interpretation is based on modern analogies (Wilmsen 1974:117-120) and may not be completely accurate. It is, however, relatively certain that they were not organized in much larger groups at this time, although some linkage of bands through kinship certainly existed (Service 1962:71; Wilmsen 1974:118-119).

The Paleoindians are known from few sites in Georgia. These are usually in the piedmont and in the vicinity of the fall line (Michie 1977; Williams 1977:237-8). Their presence on the coast is hard to document, partly because sea level fluctuations have occurred which have drowned the likely habitation sites on the coast (DePratter and Howard 1977:7). No definitive Paleoindian materials are known from Chatham County, although a human mandible recovered from a mudbank in southern Chatham County seems to be of early age. This find is from an unstable context (a marsh/clay bank/stream interface) suggesting that the fossilized lower jawbone might be of much more recent date than first thought (Clark Larson, personal communication).

Diagnostic Paleoindian fluted points have been found on Myrtle Island, near Bluffton, South Carolina confirming the presence of an early occupation in this area (Williams 1977:236-242). Unconfirmed indications of a Paleoindian occupation were noted at Indian Point by this survey.

ARCHAIC

The Archaic stage (circa 8000-1100 BC) marks a period of gradual settlement within a region. It has traditionally been divided into three phases or substages: Early, Middle and Late. The wide-ranging foraging practices of the Paleoindians seem to have ceased with the demise of the megafauna and the gradual drying up of the great plains (Hudson 1978:44-6; Krause 1985:23). How this dessication affected the Georgia coastal plain is not precisely known.

Coupled with limitation in range, the Archaic also marks a change in exploitation from big game hunting to smaller mammals. Foraging more intensively within the smaller range has been postulated. Along the Georgia coast this change is marked by the

introduction of estuarine resources, including large numbers of oysters.

In terms of artifactual assemblage, a change from the distinctive fluted projectile points and end scrapers to a more generalized lithic tradition based on regional differences has been noted (Coe 1980:120-22). As time progressed through the Archaic, additional restriction of range is indicated and longer seasonal occupation of sites seems more usual (DePratter 1977:7-8). The longer occupation within a more restricted region suggests that these people were more intensive and, probably, more sophisticated, in environmental exploitation.

The postulated more permanent, or semi-permanent, settlements tend to suggest greater reliability of food resources which, in turn, encouraged still more permanence within a regional system of seasonal alternation. Eventually, exploitation was sufficient enough to permit a fairly stable population with a pattern of seasonal camps. This stability is manifested in the development of ceramics.

Archaic peoples were most probably grouped into bands of similar size to those of the earlier period but gradually growing in size. Due to the stable nature of their existence within a regional framework, it is possible these bands may have been linked into wider groups during the later Archaic.

The Early Archaic stage (7000-5000 BC) is characterized by unifacial tool types and projectile points of the Dalton, Palmer and Kirk types (Coe 1980:120-22). Both Palmer and Kirk varieties have been found at Indian Point, although in a surface context on a beach left by the eroding shoreline.

The Middle Archaic Stage (5000-3000 BC) is recognized by new varieties of projectile points. This stage is not well represented on the coastal plain but interior regions were heavily utilized. Rising sea levels probably inundated sites of this period (DePratter and Howard 1977:4,7). The diagnostic projectile point types for this cultural period are the Morrow Mountain and Guilford types, both of which have been found at Indian Point.

Late Archaic (3000-1100 BC) peoples participated in two important developments. The more important change is not easy to identify archaeologically but, based on the presence of ceramics, implies a settling down within a much more limited range. The longer occupation of sites implies a stable food source. The sedentism resulted in the development of ceramics.

Archaic pottery was fiber tempered. This pottery has been found in two different time segments of the Late Archaic. The earlier fiber tempered pottery is invariably plain, thick and marked by a coarse feel. The walls of the vessels were formed of clay slabs rather than the later coils. Evidence for fiber tempering is often apparent as small irregular lines on both internal and external surfaces.

Later fiber tempered pottery dates between 1700 and 1100 BC. It is distinguished by incising and punctating, often in combination. Plain surfaces also occur and are somewhat finer

than those found in the earlier time period. Considerable discussion about the material used in tempering has occurred but no definitive statement has been made (Marrinan 1975; Snow 1977:vii; Stoltman 1972). Both scattered shell midden and fiber tempered ceramics were encountered during the project.

At any rate, the Late Archaic clearly represents a response to a more localized, and more intensive and sophisticated, use of food resources. Stabilization of the sea level has been seen as partially responsible for this by creating food-rich coastal lagoons behind the barrier islands. In the coastal region, this cultural development has been called the Coastal Tradition (Milanich 1971).

Late Archaic sites on the coast fit into several different types, including "shell rings", shell mounds and nonshell sites (DePratter 1976). All of the aboriginal sites encountered during the project would normally be classified as nonshell due to the low frequency with which shell appeared. Only the Indian Point site, outside the project area, would be classified as a midden type of site.

WOODLAND (1100 BC to AD 1000)

The stage following the Archaic has been termed the Woodland. In a general sense, this change reflects the introduction of low level horticulture. The Woodland period is one marked by an evolution from a semi-sedentary life style to a much more settled existence. In effect, the Woodland Stage evolved into the Mississippian, a more complex form of the Woodland.

Our generalized picture of these people is that they were still exploiters of the estuarine resources, practiced hunting mammals and birds as well as using plants for a variety of purposes. It is difficult to determine if horticulture played an important role in their seasonal round or not (Krause 1985:26), but very intensive exploitation of floral resources such as nuts and seeds enhanced their lifestyle and made permanent living sites possible (Hudson 1978:56-7).

The Woodland Stage on the Georgia coast evolved through several periods marked by different ceramic types. These are Refuge (1100 BC-400 BC), Deptford (400 BC-AD 500), and Wilmington (AD 500-1000) (Thomas et al. 1979:109-132). The changing ceramic types appear to coincide with slowly evolving social complexity.

Growing social complexity is an interpretation based on earthen mounds which have been found along the coast. The erection of the mounds, ostensibly for burial purposes, has been thought to represent labor of numerous people organized under a central authority (Thomas et al.:1979:148-150). This level of organization has been seen as a chiefdom (Renfrew 1985:243-4). Even if a chiefdom were not fully established, the presence of the mounds suggests more permanent settlement and more complex social organization than found in earlier time periods. It was not as complex as the later Mississippian period (Thomas et al. 1979:150).

In the ceramics, fiber tempering yields to vessels made by coiling sand, or sand and grit, tempered paste. Both the coiling and the change in temper represent technological evolution which permitted increased vessel size with thinner walls. Decorative techniques continue to reflect those of early time periods with punctate, incised and stamped motifs.

Archaeologists identify the period when fiber tempering gave way to coiled, sand tempered ceramics about 1100 BC, as Refuge. Refuge ceramics are not normally associated with shell middens (DePratter 1976:8-10) and represent a shift from the earlier Saint Simons period (Ibid. 1977:11). At Causton's Bluff, Refuge period ceramics were recovered from test pits located in the higher areas of the bluff close to the water.

About 400 BC, a sand and grit tempered ceramic type called Deptford was developed. This period was subdivided into three phases by Caldwell (1971; Milanich and Fairbanks 1980:78). The Deptford culture, a homogenized Middle Woodland Culture, was widespread throughout the southeastern part of the United States. It has been postulated that the archaeological remains reflect a tribal level of organization composed of individual bands consisting of 20-50 people (Milanich and Fairbanks 1980:66, 69). Along the coast subsistence was still based largely on estuarine resources, although it is possible that some incipient horticulture was practiced in the form of very intensive exploitation of the vegetative resources. This interpretation gains credibility when it is noted that the northern edge of the Deptford range coincides with the northern border of the maritime forest (Ibid).

It is possible that maize horticulture came in about this time (ca. 200 BC) if the species of corn were a "tropical flint" (Hudson 1978:62). This corn might not have been very successful, indicating it was domesticated because the climate was too cool and moist (Ibid.). That the corn was in the area at all had to be due to human interaction since it apparently could not have survived in the wild.

In terms of the ceramics, the difference between Refuge and Deptford has largely been regarded as surface treatment. Refuge is seen as having interior decoration such as incising, punctate and simple stamping. Deptford is generally thought to have only exterior decorative elements. The paste is virtually the same. Ceramics recovered from Causton's Bluff suggest that these types are so similar they might be combined under a single type name and divided temporally based on surface treatment.

The Wilmington period follows Deptford, at least on the northern Georgia coast. Cord-marked pottery continues but the new ceramic type can be recognized by the presence of fairly large pieces of grit serving as temper. In addition, burnt clay or crushed ceramics also occur as tempering (Braley 1986:11). While Waring and Caldwell thought that the Wilmington period represented a cultural intrusion into the coastal region, more recent theorists (Milanich 1971, Braley 1986:14) feel that is simply an evolution from the earlier Deptford. Wilmington period

ceramics were not found in our excavations on Causton's Bluff but some were noted on the beach in front of the bluff.

By 1000 AD, through several possible alternative scenarios, the Mississippian Stage reached the southeastern coast. This stage developed much earlier (circa 700 AD) along the Mississippi River (Hudson 1978:77). The Mississippian is seen as an intensive horticultural stage, marked by more complex levels of social integration. In effect, it is simply a continued development of the Woodland Stage, marked by more extensive and intensive exploitation of cultigens. Chief among these cultigens is a new species of corn, "eastern flint", which was seemingly well adapted to the southeastern environment (Hudson 1978:80). It is perhaps significant that the only evidence for corn on Causton's Bluff came from pollen associated with a feature (# 24) dating to the Savannah period.

One scenario has an immigrant farming group displacing existing Woodland groups. A second possibility is that between 700 and 900 AD Woodland groups evolved, via diffusion and acceptance of ideas and practices, into Mississippian Indians. The third explanation is that cultivators introduced plants and practices which created settled living and resulted in local Mississippian lifestyles (Krause 1985:28-29).

By whatever means, around 1000 AD a population boom occurred and this has been attributed to the introduction of maize agriculture. On the Georgia coast this archaeological culture is divided into segments with terminology derived from ceramic types called Savannah (AD 900-1300), Irene (AD 1300-1550) and Altamaha (or Sutherland Bluff) (AD 1550-1700).

A possible transitional ceramic type, Saint Catherine's, has also been noted. Saint Catherine's ceramics were first identified as a separate type on Saint Catherine's Island (Caldwell 1971). This ware appears to be a transitional type since it contained sherd-tempered paste decorated with cord and net marking (Cook 1977:25). The sherd temper seems to be of much smaller size and the cord marking is crisscrossed, rather than in the parallel rows found on Wilmington ceramics (Caldwell 1971). Caldwell also points out that net marked wares are present in small numbers (Ibid) and that some of the vessels had burnished surfaces. Saint Catherine's wares were found on Causton's Bluff, but in limited quantities. Most recently, Crook (1986:36-7) has pointed out that there is definite contemporaneity between Saint Catherine's and Savannah at some sites. This information suggests that the use of small-scale localized terminology may not be useful in ordering regional analyses of aboriginal ceramics. It also may suggest social differences, regional ethnicity or temper supply source variation.

Savannah I (AD 1150-1200) ceramics are grit and/or sand tempered, although some occasional sherd tempering does occur (Williams 1977:125,127). During Savannah I, only fine cord marked, plain and burnished plain are found. Savannah II (AD 1200-1250) ceramics are identical to Savannah I with the addition

of check stamping. Savannah III (AD 1250-1300) ceramics are, like Savannah II, virtually identical with Savannah I. The temporal division is made on the basis on a new surface treatment, complicated stamping, which is introduced about 1250 AD (Thomas et al 1979:111-12). Surface treatment of the Savannah III wares includes plain, fine cord marked and check stamped fragments. Most of the sherds are plain. Small quantities of Savannah wares are found throughout the bluff and seem to indicate a steady cumulative development of ceramic decorative technology. The small quantities seem to suggest sporadic use of the site.

Irene I (AD 1300-1400) ceramics are very fine grit tempered, often with a dark surface and paste. The surface treatment includes complicated stamping and burnishing/polishing as well as undecorated types. Irene II (AD 1400-1550) ceramics are somewhat finer and thinner than those of the preceding Savannah periods. The most recognizable form is a thin walled, dark paste elaborately incised ware. Irene Incised ceramics are a minor but very distinguishable presence on late pre-contact and contact sites. The incised Irene ceramics are, in fact, the major distinguishing element for Irene II. The surface treatment also includes plain and complicated stamping (filfoot) decorations. Irene ceramics are not common on the bluff.

The latest stages, Irene II and Altamaha, are occasionally found in conjunction with European materials (Braley 1986:13-14) but discussion continues as to their contemporaneity. They may, therefore, reflect cultural contact between the old world and the new, following Spanish, French and later English exploration and expansion along the Georgia coast. Neither Irene II nor later aboriginal ceramics (Altamaha/Southerland Bluff) were found on Causton's Bluff sites during the survey.

From descriptions of the aboriginal population at the time of contact with the Europeans it is possible to describe something of their society. They appear to have been at a level of social organization called a chiefdom. A chiefdom is a more complex society than band or tribe and is marked by organization based on clan kinship. Economically, the chiefdom is a redistributive society where goods and services are offered to the chief who uses them for his own and the society's good. The surplus taken in by the chief also allows a third feature of the chiefdom, limited individual craft specialization. At certain times, the population can be mobilized, usually along kinship lines, to perform certain tasks or ceremonies (Renfrew 1984:204-5).

The chiefdom stage of organization is believed to have been in effect as early as the Savannah Phase (Crook 1978; 1986:29). Crook based his interpretation on the appearance of large villages which were previously unknown on the coast. Variations in village size suggest a hierarchical organization appropriate for a chiefdom.

The culture encountered by the first Europeans was named the Guale, whose territory along the coast extended from around Ossabaw Island to Saint Simons Island at contact. It has been

postulated that the Guale were composed of three chiefdoms at contact (Braley 1986:13). They had matrilineal clans which may have been formed into moieties (Crook 1984). The presence of moieties could also account for the dual chief towns referred to in the contemporary accounts (Crook 1986:17).

HISTORIC

With the rapid exploration of the Americas following the landings in Florida, the Savannah River basin was probably visited, or at least seen, by both Spanish and French explorers. The French attempted a colony on the St. John's River in Florida but this was terminated with a massacre by the Spanish in 1565 (Hudson 1978:429, 432). Immediately following the irradiation of the French, the Spanish governor Pedro Menendez Aviles planted a colony on what is now Parris Island, South Carolina (Thomas et al. 1978:181). The Spanish were successful in their colonization efforts and a line of missions on the outer islands marked their progress.

Their activities, however, also introduced disease and because they tried to consolidate the Indians at the missions, these diseases spread in epidemic form. In conjunction with altering a successful aboriginal lifestyle by concentrating the inhabitants, the Spanish also added non-productive (i.e., non-food producing) consumers to the environment. The soldiers and missionaries may have been an additional element causing stress in the community. A series of Indian revolts followed.

With the seventeenth century English expansion from the West Indies via South Carolina, the Spanish became engaged in a struggle for the Georgia coastal regions. Eventually, they evacuated the missions to a line below the Saint Mary's River (Hudson 1978:435-6). The English then exterminated the remaining coastal Indians in the Yamasee War (1715-1717) (Hudson 1978:439).

Although a trading post was established at Yamacraw Bluff where Savannah now stands, the area was not formally settled until 1733 when General James Oglethorpe landed with a group of colonists and began construction of a town. This colony was designed to be a military buffer between the Spanish, and possibly the French, and the English colonists in the Carolinas.

The first permanent English occupation on Causton's Bluff was established by Thomas Causton, an original charter member of the colony of Georgia (McPherson 1962:8). The colonial nature of the site makes it an important study of frontier patterns. Of all the original settlement plantation sites only Wormsloe, the home of Noble Jones, has been investigated archaeologically (Kelso 1979).

As a military colony, Savannah was fortified and outlying villages or forts were established in a ring about Savannah. These were located at Abercorn, Highgate, Hampstead, Vernonburg and Wormsloe. A second ring was then established with posts at Ebenezer, Fort Argyle and later Darien and Fort Frederica (Honerkamp et al. 1984:28).

Oddly enough, despite its close proximity to Savannah, Causton's Bluff was not fortified but, rather, was turned into a plantation run by Thomas Causton. Domestic and plantation activities at Causton's Bluff encompass over one hundred and seventy years of the site's occupation. With the exception of the fortifications during the Civil War, plantations dominated the cultural focus of the area.

Land was granted to a number of early settlers in the vicinity of Savannah. One 260 acre tract was granted to Thomas Causton. From 1733 to 1738, Causton developed his plantation "Ockstead" on "Causton's Bluff" (Candler 1904-16:IX:167). Causton cultivated a garden which included mulberry and grapes (Candler 1904-1916:II:214). Ockstead, in fact, was one of the outstanding plantations in Georgia (Granger 1983:6). Moreover, highland for other crops and grazing was plentiful, adding to Causton's prosperity.

By 1738, Causton's plantation was in good operating condition and he was entertaining guests there. William Stephens took a boat from Thunderbolt to Causton's farm, "which stands on a fair Eminence" (Stephens 1740). He also further described the site:

"After dinner I was agreeably amused in viewing the fine Improvements here made, as well in building a very handsome House after the modern Taste, neatly furnished, with convenient Offices and Out-houses adjoining near, in a uniform Manner; as also a large Garden and Orchard laid out elegantly, planting, and intended to be well filled with the best Kinds of all Things which this Country will produce." (Ibid).

Causton's social position was as good as his financial one. In 1733 Causton had been made keeper of the public stores controlling farm supplies and food (Candler 1904:II:214). He may have taken advantage of his position and was accused of irregularities. The accusations were never proven (McPherson 1962:215,219). Causton died returning from England after pleading his case in 1745 (Granger 1983:8).

Three definite domestic occupations after Causton are discernable archaeologically. Because the bluff was occupied continuously, the opportunity for studying change in plantation life over a long period of time is possible. In addition, the spatial distancing of sites on the bluff provides an opportunity to examine differences which may be based on wealth and/or status as they manifest themselves in the archaeological record.

Ockstead, which had been held by the Trustees until Causton's case was settled, remained with the Trustees until 1750 when it passed to William Williamson, Causton's heir (Candler 1904:II:502). Williamson gained official control of Ockstead in 1763 (Ibid.). Whether he resided at Ockstead is unknown, but during his ownership the plantation was flourishing due to rice production in the lowlands (Granger 1983:9-10). This marks a shift in the plantation's focus from upland agriculture to

lowland rice culture. A notice placed in a 1781 newspaper indicates that Causton's Bluff was not occupied by Williamson (Royal Georgia Gazette 14 June 1781). A law suit filed in March 1800 between a Richard Wall and John Bowman confirms this (Bowman Papers).

The suit involved ownership of Causton's Bluff. Prior to Oglethorpe's grant to Causton, the land had been granted through South Carolina to Miles Brewton (Ibid; Granger 1983:12-13). In 1785, John Fenwick, a surveyor from South Carolina, resurveyed and mapped the Brewton holdings in Georgia. The plantation Turckenham, later known as Twickenham, was divided into seven plats with numbers six and seven including Causton's Bluff (Granger 1983:12). The Brewton heirs were apparently unaware of the merger. John Bowman acquired the property, probably from Brewton's heirs, expecting Causton's Bluff to be included in the tract. He found that the property was occupied by Richard Wall, who was acting as caretaker for the heirs of William Williamson.

Doctor Noble Wimberly Jones deposed in June 1801 that the high ground known as Causton's Bluff was originally granted to the heirs of William Williamson. He further stated that the expenses of running the property and obtaining a grant were paid by his father Noble Jones, Esquire. Jones described the property as two hundred and sixty-four acres that was never transferred or conveyed by the grantees or their heirs. Jones, after the death of his father, paid taxes on the property as the estate of the heirs of Williamson (Bowman papers).

The legal questions surrounding ownership of Causton's Bluff continued even after the sale of the property to John McQueen in 1802 (Chatham 2I:208b, Appendix 4). In 1803 an action was brought against John McQueen which continued until 1806. The dispute over ownership may account for the low sale price in 1802 or the property could have fallen into disrepair. Even so, the plantation sold for only 100 pounds (Chatham 2A:419, Appendix 3).

The dispute centered around the value of adjacent low ground without the high ground (Testimony of Turnbull, Jones, McIntosh et al. in the Bowman Papers). Rice was the major cash crop at this time and the use of slave labor was becoming increasingly popular. The need to house a large number of slaves appears to be an issue since the low ground was deemed unsafe for establishing a settlement. Moreover, cotton was proving of value and Ockstead's upland was suited to this commodity, although no cotton seems to have been planted (Chatham 2A:419b, Appendix 3).

The high ground was indeed the mainstay of the plantation and without which the adjacent property was worthless. The legal activity surrounding Causton's Bluff continued for several years. McQueen planted both rice and cotton after acquiring Brewton Hill in 1819 (Granger 1983:11, Chatham 2I:208). Possession of Causton's Bluff and the new property allowed agricultural diversity and McQueen should have prospered with his plantations. However, a fire in Savannah followed by a yellow fever epidemic required many planters, including McQueen, to borrow capital to maintain their plantations (Granger 1983:12-13). McQueen borrowed

from his mother-in-law Mary Ann Cowper shortly before his death. He left the property to his wife Margaret with the stipulation that his holdings be kept together as much as possible (Granger 1983:13; Chatham Will Book F:218, Appendix 7).

Margaret McQueen remained in debt to her mother and later to her sister, who bought Causton's Bluff from Margaret to prevent other creditors from acquiring the property (Chatham 2P:94, 2Q:113). The property prospered under Mary Cowper's ownership.

In 1837, a national banking failure, called the Panic of 1837, disrupted commercial enterprise throughout the country. It was followed by a depression which plagued the area. Mary Cowper did not seem too affected by the events, but she desired to assist William and Virginia Mackay, distant relatives. She gave Causton's Bluff to them in trust with Thomas and Joseph Bryan acting as trustees (Chatham County 2V:173, Granger 1983:14-15).

Ownership of Causton's Bluff then changed rapidly. In 1839 a rise in land values caused Mackay to sell to Ralph King (Chatham 2W:344, Appendix 17). King borrowed on a note endorsed by William Law with the deeds to Causton's Bluff as security. The property became Law's when the bank foreclosed on King (Chatham 3B:32, Appendix 19). Law apparently made no improvements to the property, but rising land values enabled him to sell for a profit. He sold the property to Herman Blodgett in 1849 (Chatham 3F:315, Appendix 11).

In 1850, Blodgett sold 197 acres of Causton's Bluff to Robert Habersham. The property consisted of lowland and irrigation privileges for rice cultivation (3G:282-283, Appendix 12-13). A year later, Habersham purchased another parcel of land from Blodgett (Chatham 3I:22) and in 1852 bought the remainder of the plantation (Chatham 3I:312-313). In 1857, he was able to obtain a 50-acre tract reserved by Mary Cowper in her 1839 transaction (Chatham 3Q:295-296; 3Q:386-387). Thus, Causton's Bluff was entirely owned by Robert Habersham and consisted of 1,400 acres.

Although the original Causton mansion still stood, it was unfit for habitation. In 1852 Habersham built an overseer's house on the property at the request of his overseer who complained of the health hazards plaguing low lying areas surrounding the bluff (Granger 1983:18).

Habersham should have profitted from Causton's Bluff because the property was purchased at a time of general prosperity. The Civil War changed the situation. Causton's Bluff was seen as a strategic point on the landscape and Fort Bartow was built as part of the Confederate defensive system.

The interruption of plantation life created a lasting financial strain for Habersham as rice cultivation dropped to half the pre-war production (Granger 1983:18,19). Habersham left the plantation to his wife and children who sold the property in 1873 to William Paul Carmichael. The land had greatly depreciated; the value in 1852 was \$65,000, while in 1873 it sold for \$30,000 (Chatham 40:349, Appendix 29).

Carmichael attempted to make the plantation pay. In lieu of slave labor, he built tenant houses on Causton's Bluff and Deptford where laborers lived free and received reduced wages (Granger 1983:20). Carmichael produced only rice, although workers on their own time planted small gardens and produced cotton for profit (Ibid.). Carmichael resided at the overseer's house built by Habersham until his mansion on Deptford was completed (Ibid.).

Although Carmichael planted less acreage than Habersham, he made a profit. Rice was still a major cash crop, but in 1880 Carmichael lacked capital and borrowed to continue operating the plantation. He was able to reduce the debt, but was delayed in cancelling it due to a storm that destroyed his rice crop. He finally sold the property in 1885 (Granger 1983:20-21).

Causton's Bluff and Deptford were sold to Daniel G. Purse and John C. Rowland, who organized to construct a railway from Savannah to Tybee Island (Chatham 5R:96, Appendix 31). The railway was completed, but construction costs required the company to reorganize. Further failure resulted in the company's sale to the Central of Georgia Railway (Granger 1983:22). The railway had a detrimental effect on rice culture at Causton's Bluff because it crossed the rice fields and interrupted water flow. 1887 marked the last planting for many of the fields because of their alteration by the railway (Granger 1983:22).

J. F. Sweat managed Causton's Bluff as a partner of Rowland and Purse in 1888. With innovations in rice production Sweat was able to operate profitably until 1893 despite Pearce's withdrawal from the partnership in 1891 (Ibid.:22-3). The hurricane of 1893 badly damaged the local rice industry. Clifford Rowland rehabilitated the plantation and resumed cultivation until his death in 1908. Rowland had leased the property to Joseph A. Huger from 1898 to 1904 and to Rhodes and Roberds from 1904 to 1910 (Ibid.). When their lease expired, Rowland's heirs engaged Ernest Rhodes as manager. Another attempt was made to cultivate rice, but a storm destroyed the crop. Rice agriculture continued until 1910 when a lease to Rhodes and Roberds issued in 1906 expired (Granger 1983:25).

External factors affected rice production in Savannah. First, the Savannah river was deepened increasing the current and eroding the fields. Salt water began to seep into the field making planters unable to flood the fields without brackish water entering (Granger 1983:24-5). This brackish water problem must have been a very slight environmental change since testimony in 1801 revealed that the marshy areas north of the bluff were brackish and often covered with salt water (Testimony by Tebeau, McKinnon, and Bernard in the Bowman Papers). Rice production was increasing in Louisiana and Texas and the resulting competition adversely affected the local market (Ibid.) Machinery could not be used in the Savannah rice fields because they had not been cleared of cypress stumps (Claremont Lee, personal communication, dated 27 March 1987). Machinery was used in Louisiana and Texas and this lowered production costs. Due to

these factors, rice production in the lower Savannah basin became unprofitable and operations were discontinued.

Causton's Bluff saw a number of commercial ventures from 1918 to 1938 such as a proposed shipyard during World War I (Ibid.:26) and a saw mill (Ibid.), but none proved profitable. Oral history relates that the National Guard utilized the area for maneuvers in the late 1930's (Jefferson C. Reed, personal communication, dated October 1986).

A ferry continued to operate from the bluff, apparently until the Island Expressway was built. This ferry was believed to have been located just north of the Water Battery in more recent times, but cartographic evidence clearly indicates that the ferry operated from Indian Point before 1800 and that it continued in use until at least 1940 (E & W Map 1940). The ferry undoubtedly provided an intermittent cash income for the landowner and operator.

In the more recent past the site has been unoccupied. During the last 40 years, local people have utilized the site for recreational purposes such as walking, off-road vehicles and target shooting. Other trespassers have extensively hunted the bluff for relics relating to the Civil War occupation. Other less savory activities include dumping of large amounts of trash and the disposal of stolen materials. With the anticipated development which resulted in the archaeological work, these activities have been limited but not halted.

PRIOR ARCHAEOLOGICAL WORK

Formal archaeological investigations at Causton's Bluff commenced with the phase I survey in 1983. The initial survey identified all sites investigated during the mitigation phase (Fig. 2-1). Other people, chiefly relic hunters armed with metal detectors and pot hunters working along the river's edge, clearly had an impact on some of the sites.

For obvious reasons, lack of documentation, reluctance to reveal information and protection of informants, data on looting the sites at Causton's Bluff are difficult to cite. Relic hunting on Causton's Bluff has been underway since at least the 1950. By the time formal archaeological investigations began much material crucial to understanding the Civil War occupation had been removed by people who did not maintain records and who often sold those items which were recovered.

Areas which were heavily looted include the south bombproof and its immediate environs, the hutting area north of the Black Box Site, the southeast magazine, the south hutting area along the road to the 1930's period ferry, the complex around the west wall gate and finally, the northern area of the fort around the northern bombproof.

The northern walls and bombproof, the southern quarter of the fort and its bombproof and magazine also suffered heavy damage through impact by trail bikes and four wheel drive vehicles. Even when archeological work was underway, trail bikes

and four wheel drive vehicles were common intruders. At least one local recreational vehicle sales company used the mounds as a test and demonstration area.

During archaeological investigations relic hunters continued to visit the site and remove materials despite a fence and denial of permission. On several occasions, unauthorized visitors were asked to leave by members of the archaeological crew. Nevertheless, such visits continued, thefts of materials from sites were noted and anonymous phone calls told of persons excavating during times when the crew was not present.

The constant attrition of site potential through removal of materials and the recreational motoring adversely affected the site. It is difficult to assess exactly how much material was removed but at least 20 individuals are known by name, to have removed artifacts and the numbers of those who simply passed through is probably in the hundreds.

This damage, while regrettable, can be seen in terms of ongoing process described by Honerkamp, Council and Fairbanks (1983). That is, the alteration/destruction is part of the archaeological record and the history of the site and should be documented. Given the lack of cooperation by these unauthorized visitors, it is not surprising that the written record is devoid of much commentary on their activities.